Study Question Solutions for Quiz 2

Edits in red represent edits by Prof Crowley to book answers

**(20-30 min.) P 5-68A**

|  |
| --- |
| **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| 2010 |  |  |  |
| **Oct.** |  **31** | **Note Receivable — Buy Low Foods….** | **34,000** |  |
|  |  |  **Sales Revenue……………………** |  | **34,000** |
|  |  |  |  |  |
| **Dec.** |  **31** | **Interest Receivable**  |  |  |
|  |  | **($34,000 × .0525 × 2/12)…………………** | **297.5** |  |
|  |  |  **Interest Revenue………………** |  | **297.5** |
|  |  |  |  |  |
| 2011 |  |  |  |
| **Jan.**  |  **31** | **Cash………………………………………...** | **34,446.25** |  |
|  |  |  **Note Receivable — Safeway……** |  | **34,000** |
|  |  |  **Interest Receivable………………** |  | **297.5** |
|  |  |  **Interest Revenue** |  |  |
|  |  |  **($34,000 × .0525 × 1/12)…** |  | **148.75** |
|  |  |  |  |  |
| **Feb.** |  **18** | **Note Receivable — Duton Market ……** | **7,600** |  |
|  |  |  **Accounts Receivable —**  |  |  |
|  |  |  **Duton Market……………………** |  | **7,600** |
|  |  |  |  |  |
|  |  **19** | **Cash………………………………………...** | **7,400** |  |
|  |  | **Financing Expense………………………** | **200** |  |
|  |  |  **Note Receivable — Duton Market**  |  | **7,600** |

**(continued) P 5-68A**

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| **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| **20X7** |  |  |  |
| **Nov.** | **11** | **Note Receivable — Street Provisions ….** | **14,600** |  |
|  |  |  **Cash……………………………………** |  | **14,600** |
|  |  |  |  |  |
| **Dec.**  | **31** | **Interest Receivable………………………...** | **200** |  |
|  |  |  **Interest Revenue ($14,600 × .10 × 50/365)** | **200** |

***Req. 2***

|  |  |
| --- | --- |
|  |  **December 31,** |
| **BALANCE SHEET** |  **20X7** |  **20X6** |
|  **Current assets:** |  |  |
|  **Note receivable…………………** | **$14,600** | **$34,000** |
|  **Interest receivable……………** | **200** | **297.5** |

**(20-30 min.) P 5-77B**

*Req. 1*

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| --- |
| **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| 2010 |  |  |  |
| **Nov.** | **30** | **Note Receivable — Bragg Market……….** | **32,000** |  |
|  |  |  **Service Revenue…………………….** |  | **32,000** |
|  |  |  |  |  |
| **Dec.** | **31** | **Interest Receivable (€32,000 × .04 × 1/12).** |  **106.67** |  |
|  |  |  **Interest Revenue………………………** |  |  **106.67** |
|  |  |  |  |  |
| 2011 |  |  |  |
| **Feb.** | **28** | **Cash……………………………………………** | **32,320** |  |
|  |  |  **Note Receivable — Bragg Market** |  | **32,000** |
|  |  |  **Interest Receivable…………………** |  |  **106.67** |
|  |  |  **Interest Revenue**  **(€32,000 × .04 × 2/12)……………….** |  |  **213.33**  |
|  |  |  |  |  |
| **Mar.** | **1** | **Note Receivable — Don’s Market ………...** | **7,200** |  |
|  |  |  **Accounts Receivable — Don’s Market** |  | **7,200** |
|  |  |  |  |  |
|  | **1** | **Cash…………………………………………….** |  **7,000** |  |
|  |  | **Financing Expense…………………………..** |  **200** |  |
|  |  |  **Note Receivable — Don’s Market …** |  | **7,200** |

**(continued) P 5-77B**

|  |
| --- |
| **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| 2011 |  |  |  |
| **Dec.** |  **16** | **Note Receivable — Stratford Provisions** | **15,400** |  |
|  |  |  **Cash…………………………………….** |  | **15,400** |
|  |  |  |  |  |
| **Dec.** |  **31** | **Interest Receivable……………………….** | **60.12** |  |
|  |  |  **Interest Revenue (€15,400 × .095 × 15/365)** | **60.12** |

***Req. 2***

|  |  |
| --- | --- |
|  |  **December 31** |
| **BALANCE SHEET** |  **20X7** |  **20X6** |
|  **Current assets:** |  |  |
|  **Note receivable…………………** | **€15,400** | **€32,000** |
|  **Interest receivable……………** | **60.12** | **106.67** |

**(30-40 min.) P 6-63A**

***Req. 1 (partial income statements)***

|  |
| --- |
| **Bell Aviation** |
| **Income Statement** |
| **Year Ended December 31, 20X6** |
|  | **AVERAGE** | **FIFO** | **LIFO** |
| **Sales revenue** | **$132,447** | **$132,447** | **$132,447** |
| **Cost of goods sold** |  **73,888** |  **73,359** |  **74,360** |
| **Gross profit** | **$ 58,559** | **$ 59,088** | **$ 58,087** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Computations of cost of goods sold:** |  |  |  |
|  |  |  |  |
|  | **Average cost** | **=** | **($6,083 + $2,496 + $68,470 + $4,876)** | **=** |  **$8.2007** |  |  |
|  | **per unit** | **(790 + 320 + 8,350 + 530)** |  |  |
|  |  |  |  |  |
|  | **COGS at average cost = 9,010 × $8.2007** |  | **=** |  **$73,888** |
|  |  |  |  |  |
|  | **FIFO COGS** | **=** | **(790 @ $7.70) + (320 @ $7.80) + (7,900 @ $8.20)**  | **=** |  **$73,359** |
|  |  |  |  |  |  |
|  | **LIFO COGS** | **=** | **(530 @ $9.20) + (8,350 @ $8.20) + (130 @ $7.80)** | **=** |  **$74,360** |

**(continued) P 6-63A**

***Req. 2***

**Use the LIFO method to minimize income tax because cost of goods sold is highest (gross profit is lowest) under LIFO when inventory costs are rising.**

**(30-40 min.) P 6-72B**

***Req. 1 (partial income statements***

|  |
| --- |
| **Buzz Aviation** |
| **Income Statement** |
| **Year Ended December 31, 20X6** |
|  | **AVERAGE** | **FIFO** | **LIFO** |
| **Sales revenue** | **€128,226** | **€128,226** | **€128,226** |
| **Cost of goods sold** |  **73,171** |  **72,654** |  **73,607** |
| **Gross profit** | **€ 55,055** | **€ 55,572** | **€ 54,619** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Computations of cost of goods sold:** |  |  |  |
|  |  |  |  |
|  | **Average cost** | **=** | **(**€**5,548 +** €**2,387 +** €**67,797 +** €**4,732)** | **=** | €**8.1031** |  |  |
|  | **per case** | **(730 + 310 + 8,370 + 520)** |  |  |
|  |  |  |  |  |
|  | **COGS at average cost = 9,030 × $8.1031** |  | **=** | €**73,171** |
|  |  |  |  |  |
|  | **FIFO COGS** | **=** | **(730 @ $7.60) + (310 @ $7.70) + (7,990 @ $8.10)**  | **=** | €**72,654** |
|  |  |  |  |  |  |
|  | **LIFO COGS** | **=** | **(520 @ $9.10) + (8,370 @ $8.10) + (140 @ $7.70)**  | **=** | €**73,607** |

**(continued) P 6-72B**

***Req. 2***

**Use LIFO to report the highest net income because cost of goods sold is lowest (gross profit is highest) under LIFO when inventory costs are rising.**

**(15-30 min.) P 6-64A**

**ELV Trade Mart should apply the *lower-of-cost-or-market* rule to account for inventories. The current replacement cost of ending inventory is less than ELV’s actual cost, so ELV must write the inventory down to current replacement cost, with the following journal entry:**

|  |  |  |
| --- | --- | --- |
| **Inventory Write-down.…………** | **75,000** |  |
|  **Inventory………………………...** |  | **75,000** |
| **To write inventory down to NRV.** |

**ELV should report the following amounts in its financial statements:**

|  |  |
| --- | --- |
| **BALANCE SHEET** |  |
|  **Inventory…………………………………………..** | **$145,000\*** |
|  |  |
| **INCOME STATEMENT** |  |
|  **Cost of goods sold ($770,000)……** | **$770,000** |

**\_\_\_\_\_**

**\*$200,000 − $75,000 = $145,000**

 ***Reliability qualitative characteristic* is the reason to account for inventory at the lower of cost or NRV. Not revaluing the inventory to the lower NRV lends biasness to the ending inventory which violates the reliability requirement.**

**The *Matching principle* (from Chapter 3: Accrual Accounting & Income) requires costs/losses to be recorded in the period in which they contributed to revenue/gains. Since the impairment in inventory occurred during this accounting period, not recording the impairment would mean a misstatement of both this year’s and the subsequent year’s net income.**

**Responses may vary.**

**(15-20 min.) P 6-73B**

**Aquarium Trade Mart should apply the *lower-of-cost-or-market* rule to account for inventories. The current replacement cost of ending inventory is less than Aquarium Trade Mart’s actual cost, so Aquarium Trade Mart must write the inventory down to current replacement cost, with the following journal entry:**

|  |  |  |
| --- | --- | --- |
| **Inventory Write-down………** | **70,000** |  |
|  **Inventory…………………...** |  | **70,000** |
| **To write inventory down to NRV.** |

**Aquarium Trade Mart should report the following in its financial statements:**

|  |  |
| --- | --- |
| **BALANCE SHEET** |  |
|  **Inventory**  | **€210,000\*** |
|  |  |
| **INCOME STATEMENT** |  |
|  **Cost of goods sold (€800,000)………** |  **€800,000** |

**\*€280,000 − €70,000 = €210,000**

***Faithful representation qualitative characteristic* is the reason to account for inventory at the lower of cost or NRV. Not revaluing the inventory to the lower NRV lends a biasness to the ending inventory which violates the reliability requirement.**

**The *Matching principle* (from Chapter 3: Accrual Accounting & Income) requires costs to be recorded in the period in which they contributed to gains. Since the impairment occurred during this period, not recording it would mean a misstatement of both this year’s and the subsequent year’s net income.**

**Responses may vary.**

**(15-20 min.) P 6-68A**

***Req. 1 (corrected income statements)***

|  |
| --- |
| **R. B. Video Sales** |
| **Income Statement (adapted; *amounts in millions*)** |
| **Years Ended 20X6, 20X5, and 20X4** |
|  | **20X6** | **20X5** | **20X4** |
| **Net sales revenue……………...** |  | **$39** |  | **$36** |  | **$33** |
| **Cost of goods sold:** |  |  |  |  |  |  |
|  **Beginning inventory…..** | **$ 8\*** |  | **$ 7\*** |  | **$ 3** |  |
|  **Purchases…………………** |  **27** |  |  **25** |  |  **23** |  |
|  **Goods available………..** | **35** |  | **32** |  | **26** |  |
|  **Ending inventory…………** |  **(6)** |  |  **(8)\*** |  |  **(7)\*** |  |
|  **Cost of goods sold………** |  |  **29** |  |  **24** |  |  **19** |
| **Gross profit……………………..** |  | **10** |  |  **12** |  | **14** |
| **Operating expenses.. …….** |  |  **6** |  |  **6** |  |  **6** |
| **Net income………………………** |  | **$ 4** |  | **$ 6** |  | **$ 8** |

**\*Throughout the period from year end 20X4 to year beginning 20X6, inventory was understated by $3 million.**

**(continued) P 6-68A**

***Req. 2***

**The corrections did not change total net income over the three-year period. But the corrections drastically altered the trend of net income — from an increasing pattern to a decreasing pattern.**

***Req. 3***

**The shareholders will *not* be happy with a declining trend of net income because the company is losing ground with its profits.**

**(15-20 min.) P 6-77B**

***Req. 1 (corrected income statements)***

|  |
| --- |
| **Waterville Video Sales** |
| **Income Statement (adapted; *amounts in millions*)** |
| **Years Ended 20X6, 20X5, and 20X4** |
|  | **20X6** | **20X5** | **20X4** |
| **Net sales revenue……………...** |  | **€42** |  | **€39** |  | **€36** |
| **Cost of goods sold:** |  |  |  |  |  |  |
|  **Beginning inventory…..** | **€ 12\*** |  | **€ 11\*** |  | **€ 8** |  |
|  **Purchases…………………** |  **33** |  |  **31** |  |  **29** |  |
|  **Goods available………..** |  **45** |  |  **42** |  | **37** |  |
|  **Ending inventory…………** |  **(11)** |  |  **(12)\*** |  |  **(11)\*** |  |
|  **Cost of goods sold………** |  |  **34** |  |  **30** |  |  **26** |
| **Gross profit……………………..** |  | **8** |  | **9** |  | **10** |
| **Operating expenses…………...** |  |  **5** |  |  **5** |  |  **5** |
| **Net income………………………** |  | **€ 3** |  | **€ 4**  |  | **€ 5** |

**\*Throughout the period from year end 20X4 to year beginning 20X6, inventory was understated by €2 million.**

**(continued) P 6-77B**

***Req. 2***

**The corrections did not change total net income over the three-year period. But the corrections made the company’s trend of net income reflect a downward trend — with 20X5 net income decreasing from that of 20X4 and then continuing the drop in 20X6.**

***Req. 3***

**The shareholders will not be happy with the downward trend, since it appears to be continuing.**

**(20-30 min.) P 7-62A**

***Req. 1***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **LAND** | **LAND****IMPROVEMENTS** | **SALES** **BUILDING** | **GARAGE****BUILDING** | **FURNITURE** |
| **(a)** | **$283,500** |  |  | **$ 76,500** |  |
| **(b)** | **8,500** |  |  |  |  |
| **(c)** |  | **$ 31,800** |  |  |  |
| **(d)** | **900** |  |  |  |  |
| **(e)** | **5,600** |  |  |  |  |
| **(f)** |  | **1,200** |  |  |  |
| **(g)** |  |  | **$ 400** |  |  |
| **(h)** |  |  | **19,600** |  |  |
| **(i)** |  |  | **515,000** |  |  |
| **(j)** |  |  |  | **41,200** |  |
| **(k)** |  |  | **9,100** |  |  |
| **(l)** |  | **6,600\*** |  |  |  |
| **(m)** |  | **52,100** |  |  |  |
| **(n)** |  | **7,500** |  |  |  |
| **(o)** |  | **4,840\*\*** | **37,840\*\*** | **1,320\*\*** |  |
| **(p)** |  |  |  |  |  **$79,400** |
| **(q)** |  |  |  |  |  **1,900** |
| **Totals** | **$298,500** | **$104,040** | **$581,940** | **$119,020** |  **$81,300** |

**Computations:**

 **(a) Land: $315,000 / $400,000 × $360,000 = $283,500**

 **Garage building: $ 85,000 / $400,000 × $360,000 = $ 76,500**

 **(o) Land improvements: $ 44,000 × .11 = $ 4,840**

 **Sales building: $ 44,000 × .86 = $37,840**

 **Garage building: $ 44,000 × .03 = $ 1,320**

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 **\*It is also correct to debit this cost to the Land account.**

 **\*\*Assuming the supervisor is a contractor, else, expense the salary.**

**(continued) P 7-62A**

***Req. 2***

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|  **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| **20X6** |  |  |  |  |
| **Dec.** | **31** | **Depreciation Expense — Land** |  |  |
|  |  | **Improvements ($104,040 / 20 × 8/12)** |  **3,468\*** |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Land Improvements……………** |  | **3,468** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense — Sales Building** |  |
|  |  | **($581,940 / 40 × 8/12)……….………** | **9,699**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Sales Building………….………** |  | **9,699** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense — Garage** |  |  |
|  |  | **Building ($119,020 / 40 × 8/12)………** |  **1,984**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Garage Building…………………** |  | **1,984** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense —**  |  |  |
|  |  | **Furniture ($81,300 / 10 × 8/12)………** |  **5,420**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Furniture…………………………..** |  | **5,420** |

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**\*$3,248 ($97,440 / 20 × 8/12) if $6,600 (l in *Req. 1*) is**

 **debited to Land.**

 **(continued) P 7-62A**

***Req. 3***

**This problem shows how to determine the cost of a plant asset. It also demonstrates the computation of depreciation for a variety of property, plant and equipment. Because virtually all businesses use property, plant and equipment, a manager needs to understand how those assets’ costs and depreciation amounts are determined. Depreciation affects net income. Managers need to understand the meaning, components, and computation of net income because often their performance is measured by how much net income the business earns. This problem covers all these concepts with specific examples.**

**Responses will vary.**

**(20-30 min.) P 7-70B**

***Req. 1***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **LAND** | **LAND****IMPROVEMENTS** | **SALES****BUILDING** | **GARAGE** | **FURNITURE** |
| **(a)** | **€263,500** |  |  |  **€ 76,500** |  |
| **(b)** | **8,900** |  |  |  |  |
| **(c)** |  |  **€ 31,000** |  |  |  |
| **(d)** | **400** |  |  |  |  |
| **(e)** | **5,800** |  |  |  |  |
| **(f)** |  | **1,400** |  |  |  |
| **(g)** |  |  | **€ 700** |  |  |
| **(h)** |  |  | **19,900** |  |  |
| **(i)** |  |  | **510,000** |  |  |
| **(j)** |  |  |  |  **41,900** |  |
| **(k)** |  |  | **9,000** |  |  |
| **(l)** |  | **6,300\*** |  |  |  |
| **(m)** |  | **52,900** |  |  |  |
| **(n)** |  | **7,000** |  |  |  |
| **(o)** |  | **4,100\*\*** | **35,260\*\*** |  **1,640\*\*** |  |
| **(p)** |  |  |  |  |  **€79,200** |
| **(q)** |  |  |  |  |  **1,100** |
| **Totals** | **278,600** | **102,700** | **574,860** |  **120,040** |  **80,300** |

**Computations:**

 **(a) Land: 310,000 / 400,000 × 340,000 = €263,500**

 **Garage: 90,000 / 400,000 × 340,000 = € 76,500**

 **(o) Land improvements: 41,000 × .10 = 4,100**

 **Sales building: 41,000 × .86 = 35,260**

 **Garage: 41,000 × .04 = 1,640**

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 **\*It is also correct to debit this cost to the Land account.**

 **\*\* Assuming the supervisor is a contractor, else, expense the salary.**

**(continued) P 7-70B**

***Req. 2***

|  |
| --- |
| **Journal** |
| **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| **20X6** |  |  |  |  |
| **Dec.** | **31** | **Depreciation Expense — Land** |  |  |
|  |  | **Improvements (102,700 / 15 × 8/12)…...** |  **4,564\*** |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Land Improvements……………………** |  | **4,564** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense —Office** |  |
|  |  | **Building (574,860 / 30 × 8/12)…………..** | **12,775**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **District Office Building………………...** |  | **12,775** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense — Garage** |  |  |
|  |  | **(120,040 /30 × 8/12)…………………….** |  **2,668**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Garage…………………………………** |  | **2,668** |
|  |  |  |  |  |
|  | **31** | **Depreciation Expense —**  |  |  |
|  |  | **Furniture (80,300 / 8 × 8/12)…………….** | **6,692**  |  |
|  |  |  **Accumulated Depreciation —**  |  |  |
|  |  |  **Furniture…………………………….** |  | **6,692** |

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**\*4,284 (96,400 / 15 × 8/12) if 6,300 (l in *Req. 1*) is debited to**

 **Land.**

**(continued) P 7-70B**

***Req. 3***

**This problem shows how to determine the cost of a plant asset. It also demonstrates the computation of depreciation for a variety of property, plant and equipment. Because virtually all businesses use property, plant and equipment, a manager needs to understand how those assets’ costs and depreciation are determined. Depreciation affects net income. Managers need to understand the meaning, components, and computation of net income because often their performance is measured by how much net income the business earns. This problem covers all these concepts with specific examples.**

**Responses will vary.**

**(20-25 min.) P 7-67A**

***Req. 1***

|  |  |
| --- | --- |
|  | ***Millions*** |
| **Cost of PPE……………………...............** |  **$4,830** |
| **Less: Accumulated depreciation………** |  **(2,126)** |
| **Book value, net……………………………** |  **$2,704** |

***Req. 2***

**Evidences of the purchase of property, plant and equipment and goodwill:**

**1. Historical cost of PPE increased on the balance sheet.**

**2. Goodwill increased on the balance sheet.**

**3. Statement of cash flows reported “Additions to property, plant, and equipment.”**

***Req. 3***

|  |  |  |
| --- | --- | --- |
| **Property, Plant, and Equipment** |  | **Accumulated Depreciation** |
| **2/28/X5 Bal.** | **4,199** | **Cost of** |  |  | **Accum. depr.**  |  | **2/28/X5 Bal.** | **1,726** |
| **Purchased** |  |  **assets sold** |  |  |  **of assets sold** |  | **Depr. during** |  |
|  **during 20X6** | **707** |  **in 20X6** | **76** |  |  **in 20X6** | **60** |  **20X6** | **460** |
| **2/28/X6 Bal.** | **4,830** |  |  |  |  |  | **2/28/X6 Bal.** | **2,126** |

|  |
| --- |
| **Goodwill** |
| **2/28/X5 Bal.** | **519** |  |  |
| **Purchased** |  |  |  |
|  **during 20X6** |  **39\*** |  |  |
| **2/28/X6 Bal.** | **558** |  |  |

**\_\_\_\_\_**

**\*Determined by deduction, since there was no impairment on goodwill.**

**(20-25 min.) P 7-75B**

***Req. 1***

|  |  |
| --- | --- |
|  | ***Millions*** |
| **Cost of PPE………………………………** | **€ 4,836** |
| **Less: Accumulated depreciation……..** |  **(2,123)** |
| **Book value of PPE………………………** | **€ 2,713** |

***Req. 2***

**Evidences of the purchase of property, plant and equipment and goodwill:**

**1. Historical cost of PPE increased on the balance sheet.**

**2. Goodwill increased on the balance sheet.**

**3. Statement of cash flows reported “Additions to property, plant and equipment.”**

***Req. 3***

|  |  |  |
| --- | --- | --- |
| **Property, Plant, and Equipment** |  | **Accumulated Depreciation** |
| **2/28/X5 Bal.** | **4,198** | **Cost of** |  |  | **Accum. depr.** |  | **2/28/X5 Bal.** | **1,727** |
| **Purchased** |  |  **assets sold** |  |  |  **of assets**  |  | **Depr. during** |  |
|  **during 20X6** | **716** |  **in 20X6** | **78** |  |  **sold in 20X6** |  **62** |  **20X6** | **458** |
| **2/28/X6 Bal.** | **4,836** |  |  |  |  |  | **2/28/X6 Bal.** | **2,123** |

|  |
| --- |
| **Goodwill** |
| **2/28/X5 Bal..** |  **511** |  |  |
| **Purchased** |  |  |  |
|  **during 20X6** |  **42\*** |  |  |
| **2/28/X6 Bal.** |  **553** |  |  |

**\_\_\_\_\_**

**\*Determined by deduction, since there was no impairment on goodwill.**

**(15-20 min.) P 9-70A**

|  |  |
| --- | --- |
| **a. Sales tax payable ($120,000 × .05) .** | **$6,000** |
|  |  |
| **b. Note payable, short-term .** | **$85,000**  |
|  **Interest payable ($85,000 × .04 × 4/12) .** | **1,133** |
|  |  |
| **c. Unearned service revenue ($2,400×2/6) .** |  **$800**  |
|  |  |
| **d. Estimated warranty payable** |  |
|  **($11,600 + $34,000 − $34,800)**  | **$10,800** |
|  |  |
| **e. Portion of long-term note payable due** |  |
|  **within one year .** | **$35,000**  |
|  **Interest payable ($70,000 × .12) .** | **8,400** |

**(15-20 min.) P 9-79B**

|  |  |
| --- | --- |
| **a. Sales tax payable ($110,000 × .08)**  | **$8,800** |
|  |  |
| **b. Note payable, short-term**  | **$82,000**  |
|  **Interest payable ($82,000 × .04 × 4/12)**  | **1,093** |
|  |  |
| **c. Unearned service revenue ($1,200 × 2/6)**  | **$400** |
|  |  |
| **d. Estimated warranty payable** |  |
|  **($11,400 + $30,000 − $34,600)**  | **$6,800** |
|  |  |
| **e. Portion of long-term note payable due** |  |
|  **within one year**  | **$25,000**  |
|  **Interest payable ($85,000 × .10)**  | **8,500**  |

**(30-40 min.) P 9-73A**

***Req. 1***

**The 8% bonds issued when the market interest rate is 7% will be priced at a *premium*. They are relatively attractive in this market, so investors will pay a price above par value to acquire them.**

***Req. 2***

**The 8% bonds issued when the market interest rate is 9%will be priced at a *discount*. They are relatively unattractive in this market, so investors will pay less than par value to acquire them.**

**(continued) P 9-73A**

**Using financial calculator, PV = 963,956 PV of annuity = 26.777**

**Using our formula:** $\frac{36000}{.035}\left[1-\frac{1}{\left(1+0.035\right)^{20}}\right]+\frac{900000}{\left(1+0.035\right)^{20}}=963,956$

**\*Appendix B table does not have the required values.**

***Req. 3***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  **A** |  **B** |  **C** |  **D**  |  **E** |
| **Period** |  **Interest** | **Interest** | **Premium** | **Premium** |  **Bond** |
|  |  **Payment** | **Expense** | **Amortization** | **Account** | **Carrying** |
|  |  |  |  | **Balance** |  **Amount** |
|  | **(c% x Maturity)** | **(i% x E)** |  **(A - B)** | **(D-C)** | **(Maturity + D)** |
|   |   |  |   |   |   |
| **0** |  | **0** |  | **63,956** | **963,956** |
| **1** | **36,000** | **33,738** | **2,262** | **61,694** | **961,694** |
| **2** | **36,000** | **33,659** | **2,341** | **59,354** | **959,354** |
| **3** | **36,000** | **33,577** | **2,423** | **56,931** | **956,931** |
| **4** | **36,000** | **33,493** | **2,507** | **54,424** | **954,424** |

|  |
| --- |
| **Journal** |
|  | **DATE** | **ACCOUNT TITLES AND EXPLANATION** |  **DEBIT** | **CREDIT** |
| **20X0** |  |  |  |
| **a** | **Feb.** | **28** | **Cash**  | **963,956** |  |
|  |  |  |  **Premium on Bonds Payable** |  | **63,956** |
|  |  |  |  **Bonds Payable**  |  | **900,000** |
|  |  |  | **To issue bonds at a premium.**  |  |  |
| **b** | **Aug.** | **31** | **Interest Expense** | **33,738** |  |
|  |  |  | **Premium on Bonds Payable**  | **2,262** |  |
|  |  |  | **Cash**  |  | **36,000** |
|  |  |  | **To pay interest and amortize bonds.** |  |  |
| **c** | **Dec.** | **31** | **Interest Expense…………………..** | **22,439** |  |
|  |  |  | **Premium on Bonds Payable**  | **1,561** |  |
|  |  |  | **Interest Payable……….………..** |  | **24,000** |
|  |  |  | **To accrue interest and amortize bonds.** |  |
| **20X1** |  |  |  |
| **d** | **Feb.** | **28** | **Interest Payable (from Dec. 31)** | **24,000** |  |
|  |  |  | **Interest Expense** | **11,220** |  |
|  |  |  | **Premium on Bonds Payable** | **780** |  |
|  |  |  | **Cash** |  | **36,000** |
|  |  |  | **To pay interest and amortize bonds.** |  |  |

**(continued) P 9-73A**

***Req. 4 (reporting the liabilities on the balance sheet at***

 ***December 31, 20X0)***

|  |  |  |
| --- | --- | --- |
| **Current liabilities:** |  |  |
|  **Interest payable…………………………** |  | **$ 24,000** |
|  |  |  |
| **Non-current liabilities:** |  |  |
|  **Bonds payable………………………….** |  **$900,000** |  |
| **Add: Premium on bonds payable…..** |  **60,133\*** |  |
|  |  | **960,133** |

\*63,956 – 2,262 –1,561 = 60,133

*Note that this balance sheet takes place between c and d from the previous part.***(30-40 min.) P 9-82B**

***Req. 1***

**The 6% notes issued when the market interest rate is 5% will be priced at a *premium*. They are relatively attractive in this market, so investors will pay a price above par value to acquire them.**

***Req. 2***

**The 6% notes issued when the market interest rate is 7%will be priced at a discount. They are relatively unattractive in this market, so investors will pay less than par value to acquire them.**

**(continued) P 9-82B**

**Using financial calculator, PV = 2,025,925 PV of annuity = 37.517**

**Using our formula:** $\frac{54000}{.025}\left[1-\frac{1}{\left(1+0.025\right)^{40}}\right]+\frac{1800000}{\left(1+0.025\right)^{40}}=2,025,925$

**\*Appendix B table does not have the required values.**

***Req. 3***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  **A** |  **B** |  **C** |  **D**  |  **E** |
| **Period** |  **Interest** | **Interest** | **Premium** | **Premium** |  **Bond** |
|  |  **Payment** | **Expense** | **Amortization** | **Account** | **Carrying** |
|  |  |  |  | **Balance** |  **Amount** |
|  | **(c% x Maturity)** | **(i% x E)** |  **(A - B)** | **(D-C)** | **(Maturity + D)** |
|   |   |  |   |   |   |
| **0** |  | **0** |  | **225,925** | **2,025,925** |
| **1** | **54,000** | **50,648** | **3,352** | **222,573** | **2,022,573** |
| **2** | **54,000** | **50,564** | **3,436** | **219,137** | **2,019,137** |
| **3** | **54,000** | **50,478** | **3,522** | **215,616** | **2,015,616** |
| **4** | **54,000** | **50,390** | **3,610** | **212,006** | **2,012,006** |

|  |
| --- |
| **Journal** |
|  | **DATE** | **ACCOUNT TITLES AND EXPLANATION** | **DEBIT** | **CREDIT** |
| **20X0** |  |  |  |
| **a.** | **Feb.** |  **28** | **Cash…………………………** | **2,025,** | **925** |
|  |  |  | **Premium on Bonds Payable……………** |  |  **225,925** |
|  |  |  | **Bonds Payable………………………………..** |  | **1,800,000** |
|  |  |  | **To issue bonds payable at a premium.** |  |  |
|  |  |  |  |  |  |
| **b.** | **Aug.** |  **31** | **Interest Expense………………………………….** | **50,648** |  |
|  |  |  | **Premium on Bonds Payable……………….** | **3,352** |  |
|  |  |  |  **Cash………………** |  | **54,000** |
|  |  |  | **To pay interest and amortize bonds payable.** |  |  |
|  |  |  |  |  |  |
| **c.** | **Dec.** |  **31** | **Interest Expense (50,564 x 4/6)…………….** | **33,709** |  |
|  |  |  | **Premium on Bonds Payable(3,436 x 4/6)....** | **2,291** |  |
|  |  |  |  **Interest Payable ($54,000×4/6)…………….** |  | **36,000** |
|  |  |  | **To accrue interest and amortize bonds payable.** |  |
| **20X1** |  |  |  |
| **d.** | **Feb.** |  **28** | **Interest Payable (from Dec. 31)…………………** | **36,000** |  |
|  |  |  | **Interest Expense(50,564-33,709)……………..** | **16,855** |  |
|  |  |  | **Premium on Bonds Payable(3,436 – 2,291)....** | **1,145** |  |
|  |  |  |  **Cash ($1,800,000 × .06 × 6/12)……………….** |  | **54,000** |
|  |  |  | **To pay interest and amortize bonds payable.** |  |  |

**(continued) P 9-82B**

***Req. 4 (reporting the liabilities on the balance sheet at***

 ***December 31, 20X0)***

|  |  |  |
| --- | --- | --- |
| **Current liabilities:** |  |  |
|  **Interest payable**  |  | **$36,000** |
|  |  |  |
| **Non-current liabilities:** |  |  |
|  **Notes payable**  | **$1,800,000** |  |
| **Add: Premium on notes payable** |  |  |
|  | **220,282\*** | **2,020,282** |

\*225,925 – 3,352 – 2,291 = 220,282

*Note that this balance sheet takes place between c and d from the previous part.***(20-30 min.) P 9-77A**

***Req. 1***

**TO: Management of Paulus Sporting Goods**

**FROM: Student Name**

**SUBJECT: Advantages and disadvantages of borrowing versus issuing shares to raise cash for expansion**

**Raising money by borrowing has at least two advantages over issuing common shares. Borrowing does not change the present ownership of the business. It enables the present owners to keep their proportionate interests in the business and to carry out their plans without interference from a new group of shareholders. Under normal conditions, borrowing results in a higher earnings per share of common shares because the interest expense on the debt is tax-deductible. And higher earnings per share usually lead to higher share prices for company owners.**

**The main disadvantage of borrowing is that the debt increases the financial risk of the company. The principal and the related interest expense must be paid whether the company is earning a profit or not. If times get sufficiently bad, the debt burden could threaten the ability of the business to continue as a going concern.**

**(continued) P 9-77A**

**The main advantage of issuing shares is that owners avoid the burden of making interest and principal payments on the debt. Issuing shares creates no liability to pay anything to the owners. If the directors consider it necessary, they can refuse to pay dividends in order to conserve cash. Therefore, it is safer to issue shares.**

**One disadvantage of issuing shares is dilution of the ownership interests of existing shareholders if the purchasers of new shares are outsiders. The new shareholders may have different ideas about how to manage the business and that may pose difficulties for the original shareholder group. Another disadvantage of issuing shares is that earnings per share are usually lower because of (1) the greater number of shares of shares outstanding, and (2) the non-tax-deductibility of dividends paid on the shares.**

**There is insufficient information available upon which to make a decision. Sporting Goods’ management must prepare budgets which indicate the impact of the new stores in terms of net income and cash flow. Management must also estimate the cost of borrowing the funds.**